



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/603,443

06/25/2003

Robert G. Combs

RAP-1

4374

20808 7590 08/05/2009

BROWN & MICHAELS, PC  
400 M & T BANK BUILDING  
118 NORTH TIOGA ST  
ITHACA, NY 14850

EXAMINER

JONES, HEATHER RAE

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

08/05/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@bpmlegal.com  
brown@bpmlegal.com

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/603,443 | <b>Applicant(s)</b><br>COMBS, ROBERT G. |  |
|                              | <b>Examiner</b><br>HEATHER R. JONES  | <b>Art Unit</b><br>2621                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed November 3, 2008 have been fully considered but they are not persuasive.

The Applicant argues that Laird et al. fails to disclose collecting serial communication messages within the traffic light system as well as sensing and collecting serial digital communication messages between subsystems. The Examiner respectfully disagrees. Several subsystems and components of the testing system can be seen in Fig. 5 of the Laird et al. reference that communicates with one another. Furthermore, Laird et al. discloses in Fig. 5 both an Ethernet card and a DSL modem. DSL modems are well known in the art to connect to serial ports. Furthermore, computers that communicate over any network are inherently going to have some kind of serial port for sending/receiving messages. Laird et al. also discloses in Fig. 32 the receiving end of the messages along with all of the information being displayed to the user for review. Moreover, the Applicant's specification defines serial digital data as being data messages from computer or microprocessor-based sensors and peripherals that indicate various values, as well as sensor status. As can be seen in Fig. 32 the car's speed is given as well as time information and even though the car's speed is determined using images from the camera in the remote location only the final information is sent to the field office which can be seen here and would include serial digital data as defined by the definition in the

Art Unit: 2621

Applicant's specification. Therefore, Laird et al. meets the claimed limitations of collecting serial data and the rejection is maintained.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-7, and 9-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Laird et al. (6,647,361).

Regarding claim 1, Laird et al. discloses a testing system for collecting, storing, and reviewing digital data, serial data, and video data related to events occurring in an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor under the direction of the automated controller, the testing system comprising: a) a digital signal capture card for sensing and collecting discrete digital signals of the automated system as digital data (Figs. 28 and 29 – memory fields 765, 767, and 803; col. 23, lines 62-64; col. 24, lines 3-5; col. 25, lines 16-17 – these memory fields indicate whether the car is a violator or non-violator and the current traffic light phase); b) a multi-port serial port expansion card for sensing and collecting

digital communication messages between subsystems as serial data (Figs. 28 and 29; col. 23, line 46 – col. 25, line 6 – speeds and times are all collected and stored; the subsystems can be seen in Fig. 5); c) a video frame grabber and compression card for sensing and collecting video signals as video data (Figs. 28, 29, and 32); d) a device for indexing and storing the digital data, serial data, and video data with time tags (Figs. 28 and 29; the time tag can be seen in Fig. 32 in the section designated by reference character “820”), wherein said time tags are used for relating occurrence of a particular item of a particular data type, whether digital data, serial data, or video data, to the most closely time-related data item from the other data types (Figs. 28, 29, and 32 – all data is stored accordingly and displayed together for review); and e) a display for control of the testing system and presentation of said digital data, serial data, and video data to a user during review (Fig. 32; col. 26, line 65 – col. 28, line 32).

Regarding claim **3**, Laird et al. discloses all the limitations as previously discussed with respect to claim 1 including that the reviewed video data are presented in picture format of still image or time-motion video images on the display during review (Fig. 32).

Regarding claim **4**, Laird et al. discloses all the limitations as previously discussed with respect to claim 1 including that the reviewed serial communication data are presented in time-ordered message sequence (Fig. 32 – details window (820) on the display during review; col. 27, lines 41-52).

Regarding claim **5**, Laird et al. discloses all the limitations as previously discussed with respect to claim 1, including that the reviewed serial communication data are presented as recorded in hexadecimal or ASCII format during review (Fig. 32 displays ASCII characters).

Regarding claim **6**, Laird et al. discloses all the limitations as previously discussed with respect to claim 1 including that the reviewed serial communication data are translated according to message parsing rules during review (Fig. 32 displays the time and information in the correct format – parsing is the process of analyzing a sequence of tokens (codes) to determine its grammatical structure with respect to a given formal grammar).

Regarding claim **7**, Laird et al. discloses a testing system for collecting, storing, and reviewing digital data, serial data, and video data related to events occurring in an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor under the direction of the automated controller, the testing system comprising a display for displaying data, and operatively connected to: a) means for sensing and collecting discrete digital signals of the automated system as digital data (Figs. 28 and 29 – memory fields 765, 767, and 803; col. 23, lines 62-64; col. 24, lines 3-5; col. 25, lines 16-17 – these memory fields indicate whether the car is a violator or non-violator and the current traffic light phase); b) means for indexing and storing the digital data (Figs. 28 and 29); c) means for sensing and collecting serial digital communication messages between the subsystems as serial data

(Figs. 28 and 29; col. 23, line 46 – col. 25, line 6 – speeds and times are all collected and stored; the subsystems can be seen in Fig. 5); d) means for indexing and storing the serial data (Figs. 28 and 29); e) means for sensing and collecting video signals as video data (Figs. 28, 29, and 32); f) means for indexing and storing the video data (Figs. 28 and 29); g) means for relating occurrence of a particular item of a particular data type, whether digital data, serial data, or video data, to the most closely time-related data item from the other data types, retrieving and displaying the time-related data items, according to data type and data item directed by the user, wherein the display displays each data type, whether digital data, serial data, or video data, in a time-synchronized manner, and wherein the user directs a displayed time of any individual data type, whether digital, serial or video, and the remaining two data types are automatically moved to a newly directed time (Figs. 28, 29, and 32 – all data is stored accordingly and displayed together for review; col. 26, line 65 – col. 28, line 32).

Regarding claim **9**, Laird et al. discloses all the limitations as previously discussed with respect to claim 7 including that the reviewed video data are presented in picture format of still image or time-motion video images on the display during review (Fig. 32).

Regarding claim **10**, Laird et al. discloses all the limitations as previously discussed with respect to claim 7 including that the reviewed serial

communication data are presented in time-ordered message sequence on the display during review (Fig. 32 – details window (820); col. 27, lines 41-52).

Regarding claim **11**, Laird et al. discloses all the limitations as previously discussed with respect to claim 7, including that the reviewed serial communication data are presented as recorded in hexadecimal or ASCII format during review (Fig. 32 displays ASCII characters).

Regarding claim **12**, Laird et al. discloses all the limitations as previously discussed with respect to claim 7 including that the reviewed serial communication data are translated according to message parsing rules during review (Fig. 32 displays the time and information in the correct format – parsing is the process of analyzing a sequence of tokens (codes) to determine its grammatical structure with respect to a given formal grammar).

Regarding claim **13**, Laird et al. discloses all the limitations as previously discussed with respect to claim 1 including that one or more of said serial digital communication messages are transmitted via serial communication port and wherein said digital signals are asserted via a digital input/output card (Fig. 5).

Regarding claim **14**, Laird et al. discloses all the limitations as previously discussed with respect to claims 1 and 13 including that the recorded video is output for viewing (Fig. 32 displays the video being outputted).

Regarding claim **15**, Laird et al. discloses a method of testing and evaluating an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor, the method

Art Unit: 2621

comprising the steps of: a) recording discrete digital signals of the automated system as digital data (Figs. 28 and 29 – memory fields 765, 767, and 803; col. 23, lines 62-64; col. 24, lines 3-5; and col. 25, lines 16-17 - these memory fields indicate whether the car is a violator or non-violator and the current traffic light phase); b) recording serial digital communication messages between the subsystems as serial data (Figs. 28 and 29; col. 23, line 46-col. 25, line 6 - speeds and times are collected and stored; the subsystem can be seen in Fig. 5); c) recording video images of the automated system as video data (Figs. 28, 29, and 32); d) indexing and storing said digital data, serial data, and video data with time tags (Figs. 28 and 29); and e) displaying said digital data, serial data, and video data on a single display in a time- synchronized manner based on time tags (Figs. 28, 29, and 32 – all data is stored accordingly and displayed together for review).

Regarding claim **16**, Laird et al. discloses all the limitations as previously discussed with respect to claim 15 including that wherein step d) comprises the sub-step of storing said digital data, serial data, and video data on a computer hard drive (col. 30, lines 22-39 – hard drive).

Regarding claim **17**, Laird et al. discloses all the limitations as previously discussed with respect to claim 15 as well as the method further comprising the step of searching said digital data, serial data, and video data for a particular event, a sequence of events, or a combination of events (Fig. 32 - the person

reviews the information (searches the information) to see if the cars were in violation of the traffic light).

Regarding claim **18**, Laird et al. discloses all the limitations as previously discussed with respect to claim 15 including that steps a), b), and c) occur simultaneously over a common time period (Fig. 32 – all information is combined based on their time for the viewer to get an overall sense of what happened).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 8, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laird et al. as applied to claims 1, 7, and 15 above, and further in view of Auty et al. (U.S. Patent 5,809,161).

Regarding claim **2**, Laird et al. discloses all the limitations as previously discussed with respect to claim 1, but fails to disclose that the reviewed discrete digital data are presented in graphical strip chart format on the display during review.

Referring to the Auty et al. reference, Auty et al. discloses reviewing traffic information wherein the reviewed discrete digital data are presented in graphical strip chart format on the display during review (Fig. 16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have graphically shown digital data as taught by Auty et al. in the system as disclosed by Laird et al. in order to allow the reviewer to easily correlate related data visually.

Regarding claim **8**, Laird et al. discloses all the limitations as previously discussed with respect to claim 7, but fails to disclose that the reviewed discrete digital data are presented in graphical strip chart format on the display during review.

Referring to the Auty et al. reference, Auty et al. discloses reviewing traffic information wherein the reviewed discrete digital data are presented in graphical strip chart format on the display during review (Fig. 16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have graphically shown digital data as taught by Auty et al. in the system as disclosed by Laird et al. in order to allow the reviewer to easily correlate related data visually.

Regarding claim **19**, Laird et al. discloses all the limitations as previously discussed with respect to claim 15, but fails to explicitly disclose that the method further comprises the step of providing a status feedback to a system operator, wherein the status feedback comprises a duration of recording, a current state of said digital data, serial data, and video data, and a total number of state changes of said digital data, serial data, and video data.

Referring to the Auty et al. reference, Auty et al. discloses reviewing traffic information wherein the reviewed discrete digital data are presented in graphical strip chart format on the display during review which would provide the user with status feedback, wherein the status feedback comprises a duration of recording, a current state of said digital data, serial data, and video data, and a total number of state changes of said digital data, serial data, and video data (Fig. 16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included status feedbacks to the user as disclosed by Auty et al. in the system as disclosed by Laird et al. in order to allow the reviewer to easily correlate related data visually.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2621

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones  
Examiner  
Art Unit 2621

HRJ

Application/Control Number: 10/603,443

Page 13

Art Unit: 2621

July 24, 2009

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621